

A²

5. (Amended) A method according to Claim 4, wherein said step of communicating a communications status report comprises the step of communicating an ARQ (automatic repeat request) status message between the first and second stations.

12. (Amended) A method of processing a signal representing a first field and a second field, wherein the first field is coded according to a code selected from a set of codes and the second field indicates the code applied to the first field, the method comprising the steps of:

receiving the signal at a first station;

processing the received signal to generate an estimate of the second field;

A³

identifying the code applied to the first field based on a selected one of the generated estimate of the second field or a combination of the generated estimate of the second field and respective likelihood metrics associated with decoding the received signal according to respective codes of the set of codes, wherein selection is based on a confidence in the generated estimate of the second field; and

decoding the received signal according to the identified code to produce an estimate of the first field.

13. (Amended) A method according to Claim 12:
wherein said step of identifying the code applied to the first field comprises the steps of:

decoding the received signal according to respective codes of the set of codes; and

generating respective likelihood metrics for the respective decodings of the received signal according to the respective codes of the set of codes.

A⁴

17. (Amended) A method according to Claim 12, wherein said step of identifying the code applied to the first field comprises the step of biasing a selection of a code from the set of codes based on prior communication between the first station

A4 Cont
and a second station that transmitted the signal that occurred prior to reception of the signal at the first station.

19. (Amended) A method according to Claim 12, wherein the first field is coded according to a channel code of a set of channel codes and is modulated according to a modulation code of a set of modulation codes, wherein the second field indicates the channel code and the modulation code applied to the first field, and wherein said step of identifying the code applied to the first field comprises the steps of:

generating respective likelihood metrics associated with demodulating and decoding the received signal according to respective combinations of ones of the set of modulation codes and ones of the set of channel codes; and

identifying the channel code and the modulation code applied to the first field based on the generated estimate of the second field and the generated likelihood metrics.

A5
20. (Amended) A method according to Claim 12, wherein the first field is coded according to a channel code of a set of channel codes and is modulated according to a modulation code of a set of modulation codes, wherein the second field indicates the channel code and the modulation code applied to the first field, and wherein said step of identifying the code applied to the first field comprises the steps of:

generating respective likelihood metrics associated with demodulating the received signal according to respective modulation codes of the set of modulation codes;

identifying the modulation code applied to the first field based on the generated estimate of the second field and the generated likelihood metrics associated with demodulating the received signal according to respective modulation codes of the set of modulation codes;

demodulating the received signal according to the determined modulation code;

generating respective likelihood metrics associated with decoding the demodulated signal according to respective channel codes of the set of channel codes; and

identifying the channel code applied to the first field based on the generated estimate of the second field and the generated respective likelihood metrics associated with decoding the demodulated signal according to respective channel codes of the set of channel codes.

21. (Amended) A method of processing a signal representing information coded according to a code selected from a set of codes, the method comprising the steps of:

receiving the signal at a first station;

determining an extent to which to decode the received signal based on a communication between the first station and a second station that transmitted the signal that occurred prior to reception of the signal at the first station;

decoding the received signal according to respective codes of the set of codes to the determined extent to generate respective likelihood metrics associated with respective codes of the set of codes;

selecting a code from the set of codes based on the respective likelihood metrics; and

decoding the received signal according to the selected code to generate an estimate of the information.

31. (Amended) A wireless station, comprising:

a receiver that receives a signal representing information coded according to a code selected from a set of codes, that decodes the received signal according to respective codes of the set of codes to generate respective likelihood metrics associated with respective codes of the set of codes and that selects a code from the set of codes based on the respective likelihood metrics, and that decodes the received signal according to the selected code to generate an estimate of the information, wherein the selection of the code from the set of codes is biased based on a

Ale
Cont.

communication between the wireless station and a station that transmitted the signal that occurred prior to reception of the signal.

45. (Amended) A wireless station for processing a signal representing information coded according to a code selected from a set of codes, the wireless station comprising:

A7
a receiver that receives the signal, that determines an extent to which to decode the received signal based on a communication between the wireless station and a station that transmitted the signal that occurred prior to reception of the signal, that decodes the received signal according to respective codes of the set of codes to the determined extent to generate respective likelihood metrics associated with respective codes of the set of codes, that selects a code from the set of codes based on the respective likelihood metrics, and that decodes the received signal according to the selected code to generate an estimate of the information.

51. (Amended) A wireless station for processing a signal representing information coded according to a code selected from a set of codes, the wireless station comprising:

means for receiving the signal;

A8
means for decoding the received signal according to respective codes of the set of codes to generate respective likelihood metrics associated with respective codes of the set of codes;

means for selecting a code from the set of codes based on the respective likelihood metrics, wherein the selection of the code from the set of codes is biased based on a communication between the wireless station and a station that transmitted the signal that occurred prior to reception of the signal; and

means for decoding the received signal according to the selected code to generate an estimate of the information.

63. (Amended) A wireless station for processing a signal representing information coded according to a code selected from a set of codes, the wireless station comprising:

means for receiving the signal;

means for determining an extent to which to decode the received signal based on a communication between the wireless station and a station that transmitted the signal that occurred prior to reception of the signal;

means for decoding the received signal according to respective codes of the set of codes to the determined extent to generate respective likelihood metrics associated with respective codes of the set of codes;

means for selecting a code from the set of codes based on the respective likelihood metrics; and

means for decoding the received signal according to the selected code to generate an estimate of the information.

64. (Amended) A wireless station according to Claim 63, wherein the means for determining an extent comprises means for determining the extent to which to decode the received signal based on at least one of:

a measure of channel quality;

a communications status report;

a state of a communications transaction between the wireless station and the station that transmitted the signal; and

an extent to which a previously received signal was decoded.
